Claims

1. Method of preparing a target slide for mass spectroscopy analysis comprising the steps of: making at least one pit (9a-9n) having a wall (13a-13n) and a pit bottom (15a-15n) in a sample receiving surface (5) of the substrate (3) of a target slide (1), wherein there is a rim (11a-11n) between said sample receiving surface and said wall (13a-13n), and making said sample receiving surface (5) and the rim (11a-11n) of said at least one pit (9a-9n) more hydrophobic than the substrate (3) of said target slide.

2. Method in accordance with claim 1 characterised in by the step of making said at least one pit less than 1 mm wide.

3. Method in accordance with claim 1or 2 characterised by the steps of forming said at least one pit (9a-9n) in said slide and coating the rim (11a-11n) of said at least one pit (9a-9n) with a layer of hydrophobic material (17).

4. Method in accordance with any of the previous claims characterised by the step of making the pit bottom(s) (15a-15n) of said at least one pit (9a-9n) more hydrophobic than the substrate (3) of said target slide.

5. Target slide for use in a mass spectrometer characterised in that it comprises a substrate (3) with a sample receiving surface (5) comprising at least one pit (9a-9n) having a wall (13a-13n) and a pit bottom (15a-15n) in said sample receiving surface (5), wherein there is a rim (11a-11n) between said sample receiving surface and said wall (13a-13n), wherein said sample receiving surface (5) and the rim (11a-11n) of said at least one pit (9a-9n) are more hydrophobic than the substrate (3).

6. Target slide in accordance with claim 5 characterised in that said at least one pit (9a-9n) is less than 1 mm wide.

7. Target slide in accordance with claim 6 characterised in that said at least one pit is more than 0.05 mm wide.

8. Target slide in accordance with any of claims 5-7 characterised in that said at least one pit (9a-9n) is less than 100 μm deep.

9. Target slide in accordance with any of claims 5-8 characterised in that said at least one pit (9a-9n) is more than 5 μm deep.

10. Target slide in accordance with any of claims 5-9 characterised in that said target slide comprises a substrate (3) of conducting material coated with a layer (17) of hydrophobic material.

11. Target slide in accordance with claim 10 characterised in that said layer (17) of hydrophobic material is less than 0.1 mm thick.

12. Target slide in accordance with any of claims 5-11 characterised in that said pit bottom (15a-15n) is more hydrophobic than the substrate (3).